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EXAMINER
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WORKU, NEGUSSIE

ART UNIT	PAPER NUMBER
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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/053,989

Applicant(s)

KELSAY, CURTIS GREGORY

Examiner

Negussie Worku

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-25 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-25 and 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. Applicant's remarks and/or arguments filed on 10/04/07, applicant's arguments with regard to claims 1-7, 9-25, 29 through 32 have been carefully reviewed and respectfully considered. However, upon further consideration claims are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 4, 5, 9-14 are rejected under 35 U.S.C. 102 (e) as being anticipated by Yamauchi et. al. (USP N 6,717,702).

With respect to claim 1, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1) comprising: a scanner body (scanner housing 11 of fig 1); and a self-propelled light bar assembly (scanning assembly 15 of fig 1, which includes light source unit, image sensor 15, to move parallel along the guide shaft 3, simultaneously

with motor 5 of fig 1) supported within the scanner body frame 1, supported by holder 7 of fig 1, col.3, lines 35-60).

With respect to claim 4, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1), and further comprising a platen (platen glass 100 of fig 6) supported by the scanner body (frame 11 as a scanner body of fig 1) and having a first edge, and wherein the drive track (guide shaft 3 of fig 1), is positioned adjacent to the first edge of the platen (guide shaft 3 of fig 1, positioned adjacent to the edge of the platen 100 of fig 6).

With respect to claim 5, Yamauchi (702) an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (scanning assembly 15, includes light source) comprises a biasing member (motor 5 of fig 1) configured to urge the drive wheel towards the drive track (motor 5, in connection with transmission means 8, which might includes wheel that urge to drive guide rail or shaft 3 of fig 1, over slider 2, col.3, lines 45-55).

With respect to claim 6, Yamauchi (702) an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (scanning assembly 15, includes light source) is supported within the scanner body (frame 11 of fig 1) by the drive track

(scanning assembly 1 of fig 1, comprises light source for the scanning system fig 1, which is supported with in the scanner frame 11 of fig 1, including a shaft 3 of fig 1).

With respect to claim 9, Yamauchi (702) an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (scanning assembly 15, includes light source), comprises a linear electric motor (motor 5 of fig 1) configured to propel the light bar assembly (co.l.3, lines 30-50).

With respect to claim 10, Yamauchi (702) an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (scanning assembly 15, includes light source), comprises a linear electric motor (motor 5 of fig 1) configured to propel the light bar assembly (co.l.3, lines 30-50).

With respect to claim 11, Yamauchi (702) an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (scanning assembly 15, includes light source), comprises a linear electric motor (motor 5 of fig 1) configured to propel the light bar assembly (co.l.3, lines 30-50).

With respect to claim 12, Yamauchi (702) teaches an optical scanning apparatus (flatbed scanner of fig 1), a scanner body (scanner body 11 of fig 1); a light bar

assembly supported within the scanner body (since scanner assembly 15 of fig 1, is supported within the body of frame 11 of fig 1, the light bar assembly is included within the scanner 15, as discussed in reference col.3, lines 35-45), comprising a drive motor, (drive motor 5 of fig 1), and light source, (light source is accommodated within scanner assembly 15 of fig 1) the light bar assembly configured to move the drive motor (5 of fig 1) and the light source together (motor 5, scanner 15 which includes light source unit, moves parallel along the shaft 3, at same time or together, as shown in fig 1).

With respect to claim 13, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1 and 2), and further comprising a support surface (support glass platen 100 of fig 6) within the scanner body, (scanner body 11 of fig 1) upon which the light bar assembly is supported, (scanner assembly 15 is supported by holder 7 of fig 1) and wherein the light bar assembly further comprises support wheels (guide shaft 3 of fig 1) which rest on the support surface, (support surface frame 11, for supporting the scanning assembly 15, which includes light source).

With respect to claim 14, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1 and 6), and wherein the light bar assembly (scanner assembly 15 comprises light source) further comprises biasing members (biasing spring 13 of fig 2A) which support the support wheels (support holder 7 of fig 1 and 2A) on the light bar assembly, (15 of fig 1), and wherein the biasing members (spring 13 of fig 2A) urge the

support wheels against the support surface, (holder 7 of fig 2A and 2B) and thereby urge the drive wheel (motor shaft 3 of fig 1) against the drive surface (col.4, lines 20-25).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi (USPN (6,717,702), in view of Tiara (USP 5,873,308).

With respect to claim 2, Yamauchi teaches an optical scanning apparatus (image scanner of fig 1), and further comprising a platen (support glass 100 of fig 6) supported by the scanner body, (scanner body 11 of fig 1) and wherein the self-propelled light bar assembly (moving unit 15 of fig 1, which includes light source unit , to move parallel along the guide bar 3, simultaneously with motor 5, along a guide shaft 3 of fig 1, col. 3, lines 35-65).

Yamauchi does not teach a drive wheel in contact with a drive track defined on the platen to allow the drive wheel to drive the light bar assembly, along the platen.

Tiara (308) teaches a drive wheel (a pinion 39 mesh with track 38 of fig 4) in contact with a drive track (drive track 38 of fig 4) defined on the platen (support glass 50

of fig 3) to allow the drive wheel (39 of fig 4) to drive the light bar assembly (30 of fig 4), along the platen (platen support glass 50 of fig 4).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: drive wheel and drive track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Tiara (308), because of the following reasons: (a) it would have allowed a user to have a device that takes little space and reduce size and the weight of the scanning apparatus, and therefore, it should be clear to one skilled in the art that anyone of a wide variety of mechanical devices can be similarly employed to accomplish this desired result without depending from the teaching of the present invention, for the purpose of controlling.

With respect to claim 3, Yamauchi teaches an optical scanning apparatus (image scanner of fig 1), and further comprising a platen (support glass 100 of fig 6) supported by the scanner body, (scanner body 11 of fig 1) and wherein the self-propelled light bar assembly (moving unit 15 of fig 1, which includes light source unit , to move parallel along the guide bar 3, simultaneously with motor 5, along a guide shaft 3 of fig 1, col. 3, lines 35-65).



Yamauchi does not teach a drive wheel in contact with a drive track defined on the platen to allow the drive wheel to drive the light bar assembly, along the platen.

Tiara (308) teaches a drive wheel (a pinion 39 mesh with track 38 of fig 4) in contact with a drive track (drive track 38 of fig 4) defined on the platen (support glass 50 of fig 3) to allow the drive wheel (39 of fig 4) to drive the light bar assembly (30 of fig 4), along the platen (platen support glass 50 of fig 4).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: drive wheel and drive track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Tiara (308), because of the following reasons: (a) it would have allowed a user to have a device that takes little space and reduce size and the weight of the scanning apparatus, and therefore, it should be clear to one skilled in the art that anyone of a wide variety of mechanical devices can be similarly employed to accomplish this desired result without depending from the teaching of the present invention.

With respect to claim 7, Yamauchi does not teach wherein the drive wheel includes a rubberized outer portion, and the drive track has a non-smooth surface to allow the rubberized outer portion of the drive wheel to engage the drive track

Tiara (308) teaches a drive wheel (a pinion 39 mesh with track 38 of fig 4) in contact with a drive track (drive track 38 of fig 4) defined on the platen (support glass 50 of fig 3) to allow the drive wheel (39 of fig 4) to drive the light bar assembly (30 of fig 4), along the platen (platen support glass 50 of fig 4).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: drive wheel and drive track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Tiara (308), because of the following reasons: (a) it would have allowed a user to have a device that takes little space and reduce size and the weight of the scanning apparatus, and therefore, it should be clear to one skilled in the art that anyone of a wide variety of mechanical devices can be similarly employed to accomplish this desired result without depending from the teaching of the present invention.

**6. Claims 16-19, 22-25, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi et al. (USP 6,717,702), in view of Novak et al. (USP 6,753,534).**

With respect to claim 16, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1), comprising: a scanner body (scanner body 11 of fig 1); a light

bar assembly (scanner assembly 15 of fig 1, includes light source unit, to moves parallel along the ([two guide shaft 3 of fig 1); and wherein the light bar assembly (scanner assembly 15 of fig 1, includes light source) is supported in the scanner body (i.e. scanner 15 of fig 1 is supported by frame 11 of fig 1),

Yamauchi (702) does not teach or disclose the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion; a magnet-track portion of a linear electric motor fixedly supported within the scanner body.

Novak et al., in the same area of lithographic scanning system (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30), in proximity to the slider portion (slide 30 of fig 1) to thereby allow the light bar assembly (support pat-form assembly 32, 33 of fig 2, col.5, lines 20-30) to be driven along the magnet-track portion (40 and 44 of fig 2, col.5, 25 -30); a magnet-track portion (40 and 44 of fig 2) of a linear electric motor (linear motor 34 and 36 of fig 2, col.5, 35-45) fixedly supported within the scanner body (fig 1 and 2).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion; a magnet-track portion of a linear electric motor fixedly supported within the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) it would have allowed a user to shield the magnetic fields created by the moving motors or other moving magnetic permeable components from the electron beam lithography system, col.1, lines 62-68. (b) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 17, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (15 of fig 1 and 2A).

Yamauchi (702) does not teach or disclose the magnet-track.

Novak et al., in the same area of lithographic scanning system, (as shown in fig.1 and 2), teaches the magnet-track (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the

pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 18, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (15 of fig 1 and 2A).

Yamauchi (702) dose not teach or disclose light bar assembly rests on top of the magnet-track portion.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 19, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1), and wherein the light bar assembly (15 of fig 1) rests on a support surface (guide bar (shaft) 3 of fig 1) defined within the scanner body (11 of fig 1) such that the slider-portion (shaft guide bar 3 of fig 1).

Yamauchi (702) do not teach the magnetic-track portions are not in direct contact with one another.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 22, Yamauchi (702) teaches an optical scanning apparatus (image scanner of fig 1), and wherein: the light bar assembly (15 of fig 1 an4), is defined by a first end and a second end (fig 2A); the drive wheel is a first drive wheel, (motor 5, via transmission 8 which might includes wheels and gears), and the

first drive wheel (gear includes in 8 of fig 1) is supported proximate the first end of the light bar assembly, (light source unit 15 of fig 1, to moves parallel along the guide bar 3 of fig 1); the optical scanning apparatus (fig 15 of fig 1).

Yamauchi (702) dose not teach a second drive track, supported within the scanner body, a second drive wheel supported proximate the second end of the light bar assembly, and in contact with the second drive track.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a second drive track, (track 44 of fig 2) supported within the scanner body, (fig 2) a second drive wheel (36 of fig 2) supported proximate the second end of the light bar assembly, (fig 2) and in contact with the second drive track (44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: a second drive track, supported within the scanner, a second drive wheel supported proximate the second end of the light bar assembly, and in contact with the second drive track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the

pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 23, Yamauchi (702) teaches a method of moving a light bar assembly (15 of fig 1), within a scanner body (11 of fig 1) of an optical scanning apparatus (image scanner of fig 15 of fig 1), comprising: providing a motive source (motor 5 of fig 1) supported by the light bar assembly (15 of fig 1); and moving the light bar assembly, using the motive source, (scanner assembly 15 of fig 1, which includes light source moving back and forth using motor 5, col. 4, lines 1-7).

Yamauchi (702) does not teach using stationary track within the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: stationary track within the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allowed users to reduce a vibration within the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have helped users to avoid a shift of the



electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 24, Yamauchi (702) teaches the method, and wherein the light bar assembly (15 of fig 1) is moved to a plurality of position, the method further comprising determining the position of the light bar assembly as it is moved (control 26, having a determining function on the position of scanning device 15, which includes light source, col.5, lines 1-5).

Yamauchi (702) dose not teach a stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: a stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to reduce a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the

electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 25, Yamauchi (702) teaches the method, (fig 1) and further comprising urging the light bar assembly (15 of fig 1) against the stationary track (shaft 3 of fig 1), while moving the light bar assembly (moveable unit 15 of fig 1) along the shaft 3 of fig 1, (light source unit 15 of fig 4, to moves parallel along the guide bar 3 of fig 1).

Yamauchi (702) dose not teach using stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to reduce a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the

electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 29, Yamauchi (702) teaches the method (fig 4) and further comprising urging the light bar assembly (15 of fig 1), while moving the light bar assembly (15 of fig 1).

Yamauchi (702) dose not teach a stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi (702) to include: stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 30, Yamauchi (702) teaches the scanner (fig 1 and 2A) further comprising a support member (holder 7 of fig 1) the light (light source 15), and the motor (5 of fig 1) fixedly attached to the support member (scanner body 11 of fig 3), the support member (7 of fig 1) movable within the scanner (scanner body 11 of fig 1).

With respect to claim 31, Yamauchi (702) teaches the scanner (fig 1) wherein the motor (5 of fig 1) is configured to linearly move the support member (guide bar 3 of fig 1) within the scanner (scanner body 15 of fig 1).

With respect to claim 32, Yamauchi (702) teaches the scanner (fig 1), wherein the motor (5 of fig 1) is connected to the drive wheel (transmission 8 of fig 1, which includes pulley 14 fig 1) via a series of meshing gears, (14 of fig 1) the drive wheel (8 of fig 1) contacting a track (motor shaft 3 of fig 1) within the scanner, (15 of fig 1) the drive wheel (pulley 14 of fig 1) carried by the support member (a shaft or a guide bar 3 of fig 1, with holder 7 of fig 1, col.3, lines 62-67).

**7. Claims 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi (702) (USP 5,873,308) in view of Novak et al. (USP 6,753,534) as applied to claims 16 -19, 22- 29-32 above, and further in view of Sugano (USP 6,961,154)**

With respect to claims 15 and 20, Yamauchi (702) as modified by Novak (534) still do not teach a position detecting system to allow the detection of the position of the light bar assembly with respect to the scanner body.

Sugano (154) teaches an optical scanning apparatus, (fig 1) and further comprising a position detecting system (sensor 18 of fig 1) to allow the detection of the position of the light bar assembly (light source mechanism 8 of fig 1) with respect to the scanner body (col.7, line 60, through col.8, lines 10-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus, to include: a position detecting system.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi (702) by the teaching of Sugano, for the purpose of allowing a users to avoid unnecessary amount of light from certain area of the document that might affect the quality of the image reading system..

With respect to claim 21, Yamauchi (702) in combination with Sugano still do not teaches a linear encoding strip

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Yamauchi as modified by Sugano to include: a linear encoding strip.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Yamauchi as modified by Sugano by the teaching of Novak et al., for the purpose to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed, in col.1, lines 62-68 through col.2, lines 23-25., and therefore, it should be clear to one skilled in the art that anyone of a wide variety of mechanical devices can be similarly employed to accomplish this desired result without depending from the teaching of the present invention.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Negussie Worku  
Examiner  
Art Unit 2625

12/03/07



TWYLER LAMB HASKINS  
SUPERVISORY PATENT EXAMINER